

Special Issue

High-Entropy Alloys (HEAs)

Message from the Guest Editors

Originated from the idea of multi-principal-element solid solution, the field of “high-entropy alloys (HEAs)” has attracted intense and increasing interest from academia and industries worldwide. Outstanding (physical, mechanical, and functional) properties have been reported for a variety of HEAs. In order to balance the properties for targeted applications, the microstructure of HEAs can be a single phase or composite, and traditional physical metallurgy principles have been applied to develop unique HEAs, including high-entropy stainless steels, high-entropy superalloys, high-entropy refractory alloys, high-entropy light-weight alloys, high-entropy oxides, high-entropy metallic compounds, *etc.* As presented in a recent comprehensive review on HEAs, great challenges remain in fundamental understanding of HEAs formation and their properties, and potential high-performance HEAs are yet to be explored. The objective of this Special Issue is to timely disseminate the rapid progress in fundamental understanding and applications of HEAs.

Guest Editors

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Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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